

[19]中华人民共和国国家知识产权局

[51]Int. Cl⁶

E01C 1/02

[12]发明专利申请公开说明书

[21]申请号 97115611.5

[43]公开日 1999年2月10日

[11]公开号 CN 1207433A

[22]申请日 97.7.31 [21]申请号 97115611.5

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[54]发明名称 一种缓解交通阻塞的方法

[57]摘要

本发明公开了一种缓解交通阻塞的方法,以路口的中心为圆心形成内圆盘和外圆,平时车辆可绕内圆盘行驶,当饱和分界线内的车辆呈饱和状时,线外的车辆则绕外圆行驶,使车辆按圆周的形式来改变行驶方向,减少了交通阻塞,加快了交通流量。



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权 利 要 求 书

一种缓解交通阻塞的方法，其特征在于：以路口中心为圆心形成一个内圆盘(1)和外圆(2)，饱和分界线(3)在内圆盘(1)和外圆(2)之间，并设有可改变行驶方向的延长过度线(4)。

说 明 书

一种缓解交通阻塞的方法

本发明涉及一种道路交通及车辆运行的方法，尤其是一种缓解交通阻塞的方法。

目前，红绿灯是城市道路的主要交通指挥信号系统之一，它在保证城市交通畅顺发挥了一定积极的作用。但随着城市规模的不断发展，车辆的增多，红绿灯指挥交通信号和交通路口的弊端也日益加剧。红绿灯信号及交叉路口的存在使车辆从四面八方集中到一个集合点，等待红绿灯有限的时间内放行，即使在放行时，车流量增大，也会在路口造成相当大的拥挤度。

本发明的目的是提供一种对城市道路交通流量进行自动引导和自动控制，缓解城市道路拥挤、阻塞，减少事故发生，加快交通流量。

为达到上述目的，通过对交叉路口和道路实施“圆加圆”的扩大，并通过一种简明的道路交通路示牌和时限牌来完成。

根据街道及车流量的大小，以交叉路的中心为圆心形成两个圆，内圆盘及外圆间有一饱和分界线，车辆可根据交通路示牌绕内圆盘行驶，当车流量高峰期时，饱和分界线内的车辆呈饱和时，在饱和线外的车辆就必须改走外圆。并设有让车辆在高峰期改变行驶方向的疏导延长过度线。

在路口实施圆加圆的扩大形式，使路口没有了直接的十字相交点，车辆可按圆周的方式来改变行驶方向，并设有车辆高峰期改变行驶方向的疏导延长过度线，使车辆不产生密集点，饱和分界线使车流量大时自动走外圆，减少拥挤度，因此，能在一定程度上减少城市交通拥挤和阻塞。

下面结合附图对发明作进一步详细说明。

图1是本发明在路口实施的平面图；

图2是车辆高流量路段的交通路示牌；

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说 明 书

图3是车辆中等流量路段的交通路示牌；

图4是车辆一般流量路段的交通路示牌。

内圆盘1和外圆2是以交叉路口中心为圆心的两个圆，大小可根据街道、路口及车流量而定，内圆盘1和外圆2之间有一饱和分界线3，延长过度线4的长度根据车辆密度，以及路口及路段的实际情况而定，为车辆高峰期改变方向所用。公共和特种车辆任何时候都可绕内圆盘1改变行驶方向，其它车辆除特定的时限外，一般情况下也可绕内圆盘1改变行驶方向，当车流量大时，饱和分界线3内的车辆呈饱和时，在饱和分界线3外的车辆就必须主动改走外圆2，车辆在路口行驶时都必须以一定的距离和速度作匀速行驶，只有改变行驶方向的车辆才能有适当的速度加减。

图2是表示经常保持在高峰期的车辆流量路段和路段走向的情况，图3是表示中等车辆交通流量路段和路段走向情况，图4是表示一般车辆交通流量和路段走向情况。

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说 明 书 附 图

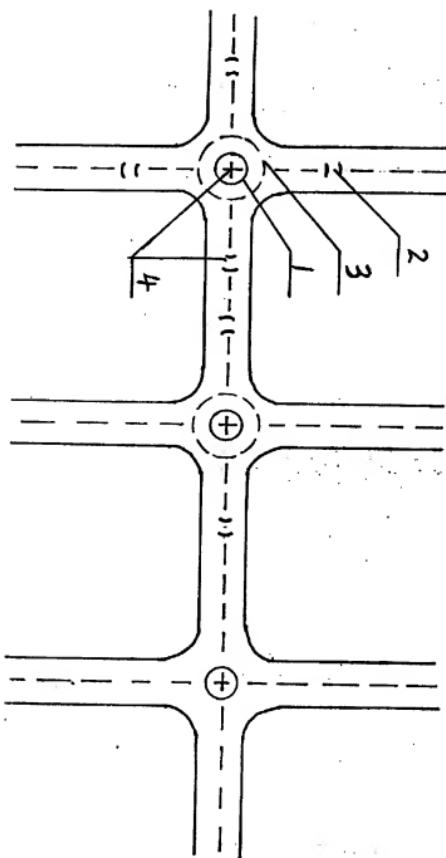


图 1

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说 明 书 附 图

图 2

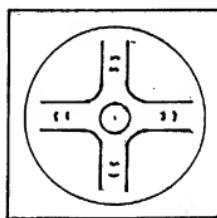


图 3

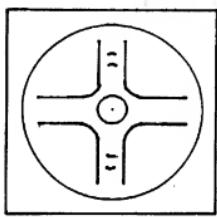
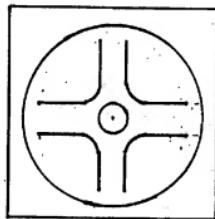


图 4



METHOD FOR RELIEVING TRAFFIC JAM

The present invention relates to a method of Road Traffic and Vehicles running. More specifically, this invention relates to A method for relieving traffic jam.

At present, traffic lights is one of the main command signal system of urban roads, it played a positive role in ensuring the smooth of traffic in cities. However, with the continuous development of the Scale of cities and the increasing number of vehicles, the disadvantages of take the traffic light to direct the traffic and the traffic signal of the junction are also increasing. The existence of traffic light and junction made vehicles from all direction run to a centralized point, waiting to release in a limited period. Although the traffic flow increased in the release period, it will also cause a considerable congestion degrees.

The purpose of the present invention is to provide a method to handle the urban road traffic with the automatically guided and automatic control System, to ease urban traffic congestion and obstruction, reduce the accident and speed up the traffic flow.

In order to achieve the above objectives, through expansion of “circle plus circle” to the intersection, and completed by a kind of simple direction-showing board and time-limiting board.

According to the flow of vehicles, take the center of junction as the center of circle, form two circles, there is a saturated boundary line , between the internal circle and external circle, vehicles run in the internal circle under the direct of the direction-showing board, on the over crowd traffic time, when the vehicles inside the saturated boundary line were saturated, the vehicles out of the saturated boundary line must be run in the external circle, with the existence of the extended buffer line which can change the vehicles' direction.

Take the expansion of “circle plus circle” to junction, vehicles can change the direction in the way of circumference without forming a intersection point, the extended buffer line can change the direction of vehicles, so that there is no intensive point formed, when the traffic is heavy, the saturated boundary line leads vehicles to run in the outer circle to ease the jam, so the urban traffic congestion and obstruction can be reduced.

The present invention will become more apparent from the following detailed description of the accompanying drawings:

Figure 1 is the plan view of the present invention carried out in the junction.

Figure 2 is the direction-showing board at the high-flow section.

Figure 3 is the direction-showing board at the medium-flow section.

Figure 4 is the direction-showing board at the low-flow section

The internal circle (1) and the external circle (2) are two concentric circles which take the center of junction as the center of circle, the size can decided by street, junction and flow of the vehicles, there is a saturated boundary line (3) between the internal circle (1) and external circle (2), the length of the extended buffer lines (4) depended on the density of the vehicles and the condition of the junction and section, which can change the vehicles' direction, public and special vehicles can change the direction in the internal circle(1) at any time, others vehicles can also change the direction in the internal circle(1) unless in particularity period of time, when the traffic is heavy, the vehicles inside the saturated boundary line(3) were saturated, those vehicles outside the saturated boundary line(3) should run in the external circle (2).

Vehicles run on the junction must run at a certain speed in a certain distance, only the vehicles which have changed their direction can add or subtract proper speed.

Figure 2 is the condition of the section and the direction of section which always been maintained at a peak period traffic flow

Figure 3 is the condition of the section and the direction of section under medium-flow

Figure 4 is the condition of the section and the direction of section under commonly traffic

Claim:

1 . A method for relieving traffic jam, comprising: take the center of junction as the center of circle to form a internal circle (1) and a external circle (2).a saturated boundary line (3) between the internal circle (1) and external circle (2), a extended buffer line (4)which can change the direction of travel as well.

Abstract

A method for alleviating the traffic jam features that internal and external circular lanes are defined in the center of road cross. The vehicles normally run along the internal circular lane. When the vehicles inside the saturation line reach saturation state, the vehicles outside the saturation line run along the external circular lane. As a result, the vehicles run in circumference, increasing traffic through put.